REMARKS

Claims 1, 3-7 and 9-14 are pending and under consideration in the above-identified application. Claims 2 and 8 were previously canceled without prejudice.

In the Office Action of November 27, 2006, Claims 1-7 and 9-14 were rejected.

With this amendment, claims 13 and 14 have been amended. Accordingly, claims 1, 3-7 and 9-14 remain at issue.

I. 35 U.S.C. § 112 Indefiniteness Rejection of Claims

Claims 13 and 14 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner asserted that support for the following claim 13 and claim 14 limitation cannot be found in the specification or drawings: "temporarily stopping output of output of transmission data further comprises temporarily forcing the data-link layer into the first mode irregardless of whether the other layer is in a data congestion state." Applicant respectfully traverses this rejection.

Referring to Figs. 1, 3, 4, 6 and 7 for illustrative purposes, Applicant teaches that the "first part 110 of the phone 100 includes a software-hierarchy communication model" run by a "first radio communication processor" (e.g., controller 115 in Fig. 1). *See*, Application pg. 10 line 20 - pg. 12 line 10; pg. 14 lines 22-27; Fig. 3. The software-hierarchy communication model has a data-link layer 203 that has a "transmission data-packet <u>congestion management function</u> to manage the transmission buffer" 119, which temporarily stores transmission data packets (e.g., associated with telephone calls handled by the first radio communication processor 115 on the first part 110 of the phone 100) received from the network layer 204 and/or the application layer 205 of the "software-hierarchy communication model." *See*, Application pg.

15 line 2 - pg. 16 line 6; Fig. 3. During normal operation of the first part 110 of the phone 100, the data-link layer 203 performs the congestion management function by issuing a "wait-before-transmit request (X off) to the upper layer" (e.g., the network layer 204 or the application layer 205) when demand for transmission of transmission data packets (e.g., "unsent packets") exceeds the capacity of the transmission buffer 119 to inhibit data congestion. *See*, Application pg. 15 lines 21-27. When transmission processing by the lower layers (e.g., the physical layer 202 and the hardware transmission portion 201) "catches up to make the unsent packets stored in the transmission buffer fall within a certain amount" (i.e., a non-data congestion state), "the data-link layer 203 issues a wait-before-transmit release (X on) to the upper layer." *See*, Application pg. 15 line 27 - pg. 16 line 6.

To prevent interference or jamming when the second part 120 of the phone 100 run by a controller 123 (operatively connected to the second radio communication processor or communicator 122 for generating a second radio communication with an adjacent reader/writer 150) detects a signal by a reader/writer 150 to start the second radio communication with the reader/writer 150, Applicant further teaches "temporarily forcing the data-link layer [run by the first radio communication processor 115] into the first mode" or the "congestion mode" to cause the upper layer to wait before transmitting another packet (associated with a first radio communication) to the transmission buffer 119 irregardless of whether the unsent packets stored in the transmission buffer 119 fall within a certain amount and, thus, irregardless of whether the lower layer is in a data congested state or not. *See*, Application pg. 18 lines 3-23; Fig. 4; pg. 19 line 15 - pg. 20 line 2; pg. 20 lines 13-23; pg. 21 line 20 - pg. 22 line 11; pg. 23 lines 8-19.

Accordingly, Applicant submits that one of ordinary skill in the art would find that the original application and figures clearly support the limitations of claims 13 and 14 and respectfully requests that the rejection to these claims be withdrawn.

II. Allowable Subject Matter

The Examiner states that claims 13 and 14 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112 noted above and to include all of the limitations of the base claim and any intervening claims..

Applicants thank the Examiner for acknowledging the allowable subject matter of these claims. Applicant has amended claims 13 and 14 to be in independent form in accordance with the Examiner's suggestion. Accordingly, Applicants respectfully submit that claims 13 and 14 are in condition for allowance.

III. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 1, 3, 5, 7, 9 and 11 were rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over *Imatsuka* (JP 2002095051) in view of *Seppanen* (US 6,330,442) and *Nevo et al.* (US 2003/0214961 A1). Claims 4 and 10 were rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over *Imatsuka* in view of *Seppanen* and *Nevo* and further view of *Amrany et al.* (US 6,711,207). In addition, claims 6 and 12 were rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over *Imatsuka* in view of *Seppanen* and *Nevo* and further view of *Vega et al.* (US 6,282, 407). Applicant respectfully traverses these rejections.

With respect to independent claim 1, Applicant claims a radio communication method in a phone having a first part operatively configured to effect a first bidirectional radio communication with a predetermined station and a second part operatively configured to effect a second bidirectional radio communication with a reader/writer when the phone is positioned adjacent to the reader/writer. The method comprises detecting, via the second part of the phone, a signal transmitted by the reader/writer to start the second radio communication with the reader/writer. In response to detecting the signal transmitted by the reader/writer to start the second radio communication with said reader/writer, the method requires temporarily stopping output of transmission data in the first radio communication with said predetermined station such that the second radio communication is immediately inhibited from causing interference in the first radio communication. The step of temporarily stopping output of transmission data comprises stopping, via a controller associated with the second part of the phone, the inputting of transmission data into a buffer that temporarily stores the transmission data.

Independent claim 7, as amended, has similar limitations to claim 1.

As acknowledged by the Examiner in the Office Action, *Imatsuka* and *Seppanen* do not disclose the limitation of, "in response to detecting the signal transmitted by the reader/writer to start the second radio communication with said reader/writer, temporarily stopping output of transmission data in the first radio communication with said predetermined station such that the second radio communication is immediately inhibited from causing interference in the first radio communication." However, the Examiner asserts that *Nevo* teaches this limitation that is missing from the teachings of either *Imatsuka* or *Seppanen*.

Applicant respectfully disagrees. First, Applicant submits that the Examiner has not addressed Applicant's argument that *Imatsuka* teaches away from this claim 1 and claim 7 limitation of "temporarily stopping output of transmission data in the first radio communication with said predetermined station such that the second radio communication is immediately inhibited from causing interference in the first radio communication," in response to detecting the signal transmitted by the reader/writer to start the second radio communication with said reader/writer. Assuming *arguendo* that *Nevo* teaches this limitation, Applicant submits that the fact that *Imatsuka* teaches away from this limitation precludes combining the teachings of *Nevo* with *Imatsuka*.

As noted in Applicant's January 17, 2007 Response to the Final Office Action dated November 27, 2006, *Imatsuka* discloses a portable telephone M that may be used to transfer through an automatic ticket gate 2 that has a reader/writer 42. *Imatsuka* further discloses that the single control circuit 20 of the portable telephone M may be on a call to another person (i.e., "the partner under present message" which may, *arguendo*, be a first radio communication) when the portable telephone M approaches the reader/writer 42 in the automatic ticket gate 2 and an "inquiry signal" from the reader/writer 42 of the automatic ticket gate 2 is detected by the control circuit 20 of the portable telephone M. *See Imatsuka,* paragraphs [0039]-[0040], [0045]-[0046]; Fig. 6. *Imatsuka* teaches that the "inquiry signal" is transmitted by the reader/writer 42 to the portable phone M to start communication (i.e., a second radio communication) with the portable telephone M. However, as acknowledged by the Examiner, rather than temporarily stopping output of transmission data in the first radio communication with the partner on the call "in response to detecting the [inquiry] signal transmitted by the reader/writer to start the second

radio communication with the reader/writer," *Imatsuka* discloses that the portable telephone M communicates an ID number to the automatic ticket gate 2 and, in turn, the automatic ticket gate 2 communicates a station code and time code to the control circuit 20 of the portable telephone M **before the control circuit ever interrupts the call or first radio communication with the other person**. *See Imatsuka,* paragraphs [0041]-[0046]; Fig. 6 and 11/27/06 Office Action at pg. 2. Thus, *Imatsuka* teaches that when an initial inquiry (e.g., a signal to start communication) is received by the control circuit 20 from the reader/writer 42, the control circuit 20 does not interrupt but allows the call to the partner to continue while the control circuit 20 transmits data (e.g., ID number) to the reader/writer and the reader/writer transmits data (e.g., station code and time code) to the control circuit 20 of the portable telephone M.

This simultaneous transmission often causes interference or jamming, which is the problem discussed by the Applicant in the present Application (See, Application at pg. 3 lines 5-13). Furthermore, the Applicant discloses that even where the frequency bandwidth of the two radio signals is different, "harmonics of the radio signal transmitted between the [phone] and the reader/writer will most likely be a jamming wave against the radio signal used in the [phone]" for a call. *Id.*

Moreover, although *Imatsuka* discloses that the control circuit 20 subsequently interrupts the call to the partner, it is not to prevent interference from any communication between the telephone M and the reader/writer as evident from *Imatsuka* teaching that ID number, station code, and time code be transmitted between the telephone M and the reader/writer 42 while a call from the telephone M to the partner is taking place. Instead, *Imatsuka* discloses that the control circuit 20 subsequently interrupts the call to the partner for the purpose of preventing accounting

charges from applying to the call while the caller is attempting to transfer through the automatic ticket gate 2. *See Imatsuka,* paragraph [0053], Fig. 6.

Thus, *Imatsuka* teaches away from the Applicant's invention as claimed in claims 1 and 7.

Moreover, unlike Applicant's invention as claimed, *Nevo* teaches that a single network management application 904 running on a wireless device 100 "monitors the operation of two other wireless devices 104 and 104b [via separate controller manager applications 106a and 106b] for an observation period, and determines the pseudo random frequency hopping pattern followed by devices 104a" and the potential "interfering frequency with devices 104b." *See, Nevo,* paras. [0057]-[0058] and step 912 in Fig. 9B. "Then, on an on going basis, network manager 904, **predicts** when interference will occur, using this psuedo random pattern and interference frequency" observed by the network manager 904 over the "observation period....Whenever, an interference is to occur, network manager 904 preemptively notifies the dominated devices [e.g., selected from either device 104a or 104b] to suspend operation accordingly, thereby allowing the dominant devices to operate without interference..." *See, Nevo,* para. [0058] and steps 914-918 in Fig. 9B.

Accordingly, Applicant submits that *Nevo* fails to teach " temporarily stopping output of transmission data in the first radio communication with said predetermined station such that the second radio communication is immediately inhibited from causing interference in the first radio communication," "**in response to detecting the signal transmitted by the reader/writer to start the second radio communication with said reader/writer"** as required by claims 1 and 17. Instead, unlike Applicant's invention, *Nevo* requires <u>monitoring</u> the transmissions of both

devices to identify a potential interference frequency from the frequency hopping pattern of the device 104a or 104b and, based on a predicted occurrence of the potential interference frequency, notifying the dominated device (e.g., 104b) to suspend transmission. Moreover, *Nevo* teaches the network manager 904 of the wireless device 100 notifies the dominated device 104b to suspend transmission. This is different from Applicant's invention as claimed in claim 7 in which the "controller [is] operatively configured to detect [and not predict the occurrence of] a signal transmitted by the reader/writer for starting the second radio communication with the reader/writer and to temporarily stop output of transmission data in said first radio communication processor [in the same radio communication unit] in response to detecting the signal such that the second radio communication is inhibited from causing interference in the first radio communication."

Moreover, in addition to the reasons given above for *Imatsuka* teaching away from the claim 1 and 7 limitation, Applicant submits that the *Imatsuka* portable telephone M would not be improved by modifying the *Imatsuka* portable telephone M to include the teachings of *Nevo*. In particular, having the capability to monitor the "inquiry signal" from the reader/writer disclosed by *Imatsuka* to determine the psuedo random frequency hopping pattern for predicting when a future interference may occur would not improve the *Imatsuka* portable telephone M in which the *Imatsuka* control circuit 20 eventually interrupts the current call on the telephone M after detecting an the "inquiry signal" for the purpose of preventing accounting charges from applying to the call while the caller is attempting to transfer through the automatic ticket gate 2.

Thus, Applicant submits that it would not be obvious to one of ordinary skill in the art to modify the combination of *Imatsuka* and *Seppanen* to include the teachings of *Nevo*.

Furthermore, Applicant submits that *Imatsuka, Seppanen, Nevo, Amrany* and *Vega* (alone or in combination) fail to teach each of the limitations of claims 1 and 7. Accordingly, Applicant respectfully requests that the rejection to independent claims 1 and 7 be withdrawn.

In addition, claims 3-6 and 9-12 depend directly or indirectly from base claims 1 and 7 and should be deemed allowable for at least the same reasons as provided for claims 1 and 7.

IV. Conclusion

In view of the above amendments and remarks, Applicant submits that claims 1-7 and 9-14 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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By: /Thomas J. Burton/

Thomas J. Burton
Registration No. 47,464
SONNENSCHEIN NATH & ROSENTHAL LLP
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, Illinois 60606-1080
(312) 876-8000

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